



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,885	01/24/2001	Kimio Inoue	202182US3	2548

22850 7590 08/26/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

SORKIN, DAVID L

ART UNIT	PAPER NUMBER
----------	--------------

1723

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,885

Applicant(s)

INOUE, KIMIO

Examiner

David L. Sorkin

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 July 2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. These claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. There is no support in the application as originally filed for the limitation "a screw set rotatably supported only at one end" recited in independent claim 10. The only statement concerning how the screw sets are supported is at page 7, lines 26-27, "a barrel 3 supporting the screw sets 1 and 1 in a rotatable manner". The barrel extends the entire length of the screw sets and is not just present at one end. Applicant argues that that the word "extruder" only applies to structures having screws which are supported at only one end; however, such is not the

Art Unit: 1723

case. The examiner cites the following references to show that extruders can have screws which are support at least at both ends: US patent Nos. 3,137,035; 5,573,311; 5,750,158; 6,179,459; and 6,382,826. US 2,351,493 is also cited to show that an "extruder" need not have a material contacting "screw" at all, but may for example have a piston instead. Applicant cites the Encyclopedia of Chemical Technology, but this reference does not provide a definition for the term extruder and instead gives an example of a typical extruder. The encyclopedia does not discuss how the screw of the example extruder is supported. Turning back to what the instant application as originally filed does or does not disclose, the application does not expressly state to what degree portions of the screw segments, rotor segments and kneading segments are directly supported by the inner surface of the barrel. However, it does state (page 5, lines 8-12) that screw segments have particularly close clearances with the inner surface of the barrel so as to scrape off material. As explained in Hendry (US 3,137,035) col. 2 lines 53-69, providing a screw segment with a particularly close clearance is a manner in which an extruder screw is supported in the art and is considered a bearing in the art. The instant application depicts such screw segments (11) having close clearances at both ends of the screw set as seen in Fig. 1A. One skilled in the art would not rule out that these perform their bearing support function known in the art from, for example, Hendry (US 3,137,035). Therefore, one skilled in the art would not consider that instant application as originally filed describes (expressly, implicitly or inherently) "a screw set rotatably supported only at one end".

Relationship to Prior Art

4. The claims are not rejected under section 102 or 103. The prior art does not disclose "a screw set rotatably supported only at one end" in combination with the remaining limitations of claim 10.

Response to Arguments

5. Applicant argues that "The claims are now limited to extruders in which product is extruded from the tip end. As such, those skilled in the art would have understood that they are inherently supported only at one end". However, Hendry US 3,137,035 and Lin US 5,573,331 contradict applicant's assertion. While the extruder of Hendry ('035) does have side discharge prior to the tip, it also discharges at the tip as explained in col. 3, lines 64-70. Furthermore, the extruder of Lin ('331) discharges only at the tip, yet the tip end it support by "supporting disc 16".

6. Especially given that the instant specification as originally filed expressly states at page 7, lines 26-27, "a barrel 3 supporting the screw sets 1 and 1 in a rotatable manner", together with the disclosure of the screw segments at both ends of the barrel having particularly close clearances with the barrel and the recognition in the art (for example from Hendry '035) the such close clearance segments are bearings, it is entirely unreasonable to believe that instant application as filed described a screw set supported only at one end.


Art Unit: 1723

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David L. Sorkin
Primary Examiner
Art Unit 1723

DLS